[Int. J. Pharm., **119**, 139-147 (1995)] [Lab. Of Pharm. Engineering]

**Parameters determining the agglomeration behaviour and the micromeritic properties of spherically agglomerated crystals prepared by the spherical crystallization technique with miscible solvent systems.**

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The parameters determining the agglomeration behaviour and micromeritic properties of spherically agglomerated crystals prepared by the spherical crystallization technique with a two- or three-miscible-solvent system were investigated. With decreasing amount of water in the three-solvent system, the median diameter of agglomerated crystals increased. The median diameter of agglomerates decreased with increasing content of ethanol in the formulation. In the two-solvent system, the median diameter of agglomerates decreased with increasing agitation speed of the system.

[J. Pharm. Pharmacol., **47**, 1-7 (1995)] [Lab. Of Pharm. Engineering]

**The Analysis of Drug Release from Diluted Water/oil/water Emulsions by a Model of the Rupture of Oil Membrane.**

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The release behaviour of theophylline encapsulated in the inner aqueous phase of a water/oil/water emulsion was investigated by two methods.The drug release rate from the emulsion decreased with increase in the concentration of sodium chloride coformulated with the drug in the inner aqueous phase. The drug release rate in the dissolution test medium No. 1 or No. 2 of the JP XII was greater than that in purified water and was increased with the ionic strength of the dissolution medium. The experimental data of drug release were satisfactorily explained by the destruction model of the oil membranes of the water/oil/water emulsions.

[Int. J. Pharm., **117**, 209-217 (1995)] [Lab. Of Pharm. Engineering]

**Aqueous colloidal polymer dispersions of biodegradable DL-lactide/glycolide copolymer as basis for latex films: a new approach for the development of biodegradable depot systems.**

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Aqueous colloidal dispersions of the biodegradable DL-lactide/glycolide copolymer were prepared by a spontaneous emulsification solvent diffusion method. Drying of the aqueous colloidal polymer dispersions led to the formation of PLGA latex films. The properties of these PLGA films and the influence of plasticizers were investigated using thermomechanical analysis and differential scanning calorimetry. It was found that polyethylene glycol 1500 and triethyl citrate had a good plasticizing effect, decreasing significantly the glass transition temperature of the PLGA latex films.